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DATE: July 3, 2002

SEND TO: Examiner Wesley Nicolas

LOCATION: United States Patent and Trademark Office  
Group Art Unit: 1741

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MESSAGE: Re: U.S.S.N. 09/605,442, filed June 28, 2000  
Attorney Docket No.: 50439-2

In connection with the above-referenced application attached please find:

- (1) Amendment Transmittal; and
- (2) Second Preliminary Amendment.

TOTAL NUMBER OF PAGES: 25, including cover sheet.

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Docket No. 50439-2

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Barstad et al.

SERIAL NO.: 09/605,442

EXAMINER: W. Nicholas

FILED: June 28, 2000

GROUP: 1741

FOR: ELECTROLYTIC COPPER ELECTROPLATING COMPOSITIONS

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01 FC:103 1782.00 CH  
02 FC:102 336.00 CH

## SECOND PRELIMINARY AMENDMENT

Please amend the above-identified application as follows.

## IN THE CLAIMS

Please cancel claims 21-23 without prejudice.

28. (amended) An article of manufacture comprising:  
a semiconductor wafer substrate having one or more microvias that have an aspect ratio of at least about 4:1 and a diameter of about 200 nm or less,  
one or more microvias containing therein an electrolytic copper deposit obtained from an electroplating composition that comprises at least one soluble copper salt, an electrolyte, and one or more brightener compounds having a molecular weight of about 1000 or less and that are present in a concentration of at least about 1.5 mg per liter of the electroplating composition.

51. (amended) An article of manufacture comprising:  
a semiconductor wafer substrate having one or more microvias that have an aspect ratio of at least about 4:1 and a diameter of about 200 nm or less,  
one or more microvias containing therein an electrolytic copper deposit obtained from an

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